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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,889	03/02/2007	Wolfgang Greiser	7333	1754
29602	7590	02/03/2010	EXAMINER	
JOHNS MANVILLE 10100 WEST UTE AVENUE PO BOX 625005 LITTLETON, CO 80162-5005			TORRES VELAZQUEZ, NORCA LIZ	
			ART UNIT	PAPER NUMBER
			1794	
			MAIL DATE	DELIVERY MODE
			02/03/2010	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/577,889

**Applicant(s)**

GREISER ET AL

**Examiner**

Norca L. Torres-Velazquez

**Art Unit**

1794

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 6-8 and 10-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-8 and 10-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

1. Claims 5 and 9 have been cancelled. Claims 1-4, 6-8 and 10-14 are pending.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 11 depends on cancelled claim 9. For examining purposes, the Examiner assumes that it depends on claim 8.

***Response to Arguments***

4. The Examiner has carefully considered Applicant's amendments and accompanying remarks filed October 01, 2009. In view of Applicant's response, the previously set forth rejection of claims 8 and 10-12 have been modified below.
5. Applicant's arguments filed 10/01/09 with regards to the prior art of HEIDEL '510 have been fully considered but they are not persuasive.

It is noted that the invention claimed in claims 1-4, 6-7, 13-14 are not product-by-process claims and do not require the argued process limitation of "stretching of the polyester filaments". The prior art is found to disclose each chemical and structural feature instantly claimed, therefore it must meet the property requirement specified, otherwise, applicant's claim is incomplete. Note ex parte SLOB (157 USPQ 172) which supports this position.

***Claim Rejections - 35 USC § 102/103***

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
7. **Claims 1-4, 6-7 and 13-14 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over HEIDEL et al. (US 6,436,510 B1) as previously stated.**

HEIDEL et al. relates to shingles and roof surfaces. (Col. 1, lines 3-4) The reference teaches spunbonded webs that preferably consist of melt-spinnable polyesters such as polyethylene terephthalate. (Refer to Col. 1, lines 65-67; Col. 2, lines 10-42) After production, the webs are consolidated mechanically, for example by needling, or thermally by calendaring at elevated temperature and pressure. (Col. 2, lines 51-53) In a further embodiment, the webs which have been mechanically consolidated by needling and/or by means of fluid jets can optionally be end-consolidated by means of a chemical binder, for example a chemical binder based on polyacrylate. (Col. 3, lines 21-25)

It is the Examiner's position that the claimed reinforcement-free, bonded non-woven of polyester filaments which is bound by a binder is met by the prior art of HEIDEL et al. It is noted herein that on Col. 5, lines 10-12; the reference teaches that in a further embodiment the invention can further comprise reinforcing layers. Thus, it is the Examiner's position that the exclusion of reinforcing layers to have a "reinforcement-free, bonded non-woven" is encompassed by HEIDEL et al. It is well settled that determination of optimum values of cause effective variables such as shrinkability is within the skill of one practicing the art. In re Boesch, 205 USPQ 215 (CCPA 1980). One having ordinary skill in the art would find it obvious to optimize

variables in the production of a nonwoven material for use in a roofing application in order to obtain a material with optimal properties of strength, tenacity, shrinkability, heat-resistance, among others.

Although HEIDEL et al. does not explicitly teach the claimed latent shrinkage force it is reasonable to presume that this property is inherent to the nonwoven of HEIDEL et al. Support for said presumption is found in the use of like materials (i.e. a spunbonded nonwoven that consists of melt-spinnable polyester, that is bonded by similar methods and also includes a binder; that is further used in roofing applications). The burden is upon Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of a latent shrinkage force of 2 N/5cm to 20 N/5 cm would obviously have been present once the HEIDEL et al. product is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977) as to the providing of this rejection made above under 35 USC 102.

With regards to claims 2-4, the reference meets the types of bonding claimed.

***Claim Rejections - 35 USC § 103***

**8. Claims 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over HEIDEL et al. (US 6436510 B1) in view of TOPOLKARAEV et al. (US 6,533,987 B2).**

HEIDEL et al. is silent to stretching the nonwoven.

It is the Examiner's position that such step would have been obvious to one having ordinary skill in the art of nonwoven materials. TOPOLKARAEV et al. teaches how to control parameters such as stretching, draw ratio, stretching temperature, stretch rate, among others in order to produce a material with shape-memory. (Refer to Col. 8 - Col. 11; Claims) Thus, it would have been obvious to one having ordinary skill in the art to provide HEIDEL et al. with a

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step of stretching the nonwoven material motivated by the desire of imparting the material with a latent deformation in a spatial dimension once the external force (of stretching) is removed. A reference may be understood by the artisan as suggesting a solution to a problem that the reference does not discuss. See KSR, 137 S. Ct. at 1742, 82 USPQ2d at 1397 “Common sense teaches... that familiar items may have obvious uses beyond their primary purposes, and in any cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle. ... A person of ordinary skill is also a person of ordinary creativity, not an automaton.”).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 571-272-1484. The examiner can normally be reached on Monday-Thursday 8:00-5:00 pm and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on 571-272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Norca L. Torres-Velazquez/  
Primary Examiner, Art Unit 1794

February 1, 2010